

A C T A Z O O L O G I C A
C R A C O V I E N S I A

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Uwagi o niektórych gatunkach rodzaju *Notonecta* L.
(*Heteroptera*, *Notonectidae*)

Заметки о некоторых видах рода *Notonecta* L.
(*Heteroptera*, *Notonectidae*)

Notes on some species of the genus *Notonecta* L.
(*Heteroptera*, *Notonectidae*)

[With 19 textfigures]¹

Although almost a quarter of a century has elapsed since the publication of Prof. H. B. HUNGERFORD'S monograph „The Genus *Notonecta* of the World“ (1933), our knowledge of the species of this genus is still rather unsatisfactory; in particular, of their distribution, and partly also of their morphology and of their relation to each other. I think, therefore, of some interest the following distributional data as well as some other notes concerning some of the species of the genus *Notonecta* L. These notes are based on material that I was able to study at various occasions during the last few years.

¹ All the figures have been drawn by Mrs. E. KOSTROWICKA.

Notonecta lutea MÜLLER, 1776.

- N. lutea* MÜLLER, 1776, Zool. Dan. Prodr., Hafniae, p. 103.
N. lutea HUNGERFORD, 1918, Ent. News, Philadelphia, Pa., **29**, pp. 242, 244, pl. XV, fig. 1.
N. lutea HUNGERFORD, 1919, Bull. Univ. Kansas, Lawrence, Kans., **21**, No. 17, p. 312, pl. XXIII, fig. 1.
N. lutea HUTCHINSON, 1928, Ent. M. Mag., London, **64**, pp. 35—36, figs. 1—2.
N. lutea HUNGERFORD, 1933, Bull. Univ. Kansas, Lawrence, Kans., **34**, No. 5, pp. 27, 56—59, 146, 168, pl. IV, fig. 7, pl. XVII, fig. 2.
N. lutea POISSON, 1935, Rev. Fr. d'Ent., Paris, **2**, pp. 117—123, figs. 1A, 2A, 3.
N. lutea (female) MACAN, 1941, Freshwat. Biol. Assoc., Sc. Publ., Ambleside, **4**, pp. 25—30, fig. 13D.
N. lutea JACZEWSKI, 1949, Fragm. Faun. Mus. Zool. Pol., Warszawa, **6**, No. 1, pp. 1—9, fig. 1.
N. lutea (female) MACAN, 1956, Freshwat. Biol. Assoc., Sc. Publ., Ambleside, **16**, pp. 30—34, fig. 26D.

It is almost impossible to distinguish *N. lutea* MÜLL. and *N. reuteri* HUNG. externally. The differences in the relative width of the vertex, the synthlipsis, and the eye, as well as those in the relative length of the head and of the pronotum are little apparent and not sufficiently constant. They offer no good characters for the discrimination of the two species in question and should be cancelled accordingly in the corresponding keys (e. g. HUNGERFORD, 1933, p. 27; JACZEWSKI, 1949, p. 8). There are also scarcely any constant differences in the convexity of the dorsal outline of the body, as suggested by POISSON (1935, pp. 120, 121). *N. lutea* MÜLL. is usually a little larger (length of specimens that I was able to measure: 13.1—15.7 mm, mean from 41 measurements: 14.0 mm) and of a somewhat stouter build than *N. reuteri* HUNG.; the lateral margins of its pronotum are, as a rule, straighter than in the latter species. All these differences are, however, subject to variation and have, therefore, only a relative value.

As to coloration, the dark spots on the scutellum seem to be met with in either species only exceptionally. In fact, only some of the specimens of *N. lutea* MÜLL. or of *N. reuteri* HUNG.

which I was able to examine recently had traces of dark spots on the scutellum.

The males of *N. lutea* MÜLL. and of *N. reuteri* HUNG. are always easy to distinguish by the shape of their parameres [HUTCHINSON, 1928, figs. 1, 2; HUNGERFORD, 1933, pl. XVII, figs. 1, 2; POISSON, 1935, figs. 3, 4; JACZEWSKI, 1949, figs. 1, 2].

In the females a good difference is offered by the shape of the median lobe of the rear margin of the seventh abdominal sternite. In *N. lutea* MÜLL. this lobe is little pronounced, blunt and broadly rounded [Fig. 1]; in *N. reuteri* HUNG. it is much more strongly developed and sometimes distinctly pointed in the middle [Fig. 5]. The gonapophyses of the eighth segment are distinctly shorter and broader in *N. lutea* MÜLL. [Fig. 2;

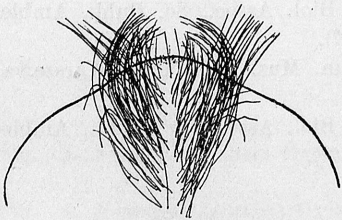


Fig. 1

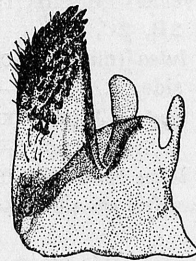


Fig. 2

Fig. 1. *Notonecta lutea* MÜLL., female, rear margin of seventh abdominal sternite (somewhat flattened under the cover glass). $\times 18$.

Fig. 2. *Notonecta lutea* MÜLL., female, right gonapophysis of eighth abdominal segment. $\times 20$.

HUNGERFORD, 1918, pl. XV, fig. 1; HUNGERFORD, 1919, pl. XXIII, fig. 1] than in *N. reuteri* HUNG. where they are comparatively longer and much more tapering [Fig. 6]. The gonapophysis figured by MACAN [1941, fig. 13D; 1956, fig. 26D] belongs in fact to *N. lutea* MÜLL., although MACAN confused in both these publications the two species here in question.

As *N. lutea* MÜLL. and *N. reuteri* HUNG. were not distinguished for a long time from each other, their geographical distribution is very insufficiently known. In addition to the distributional data given in one of my earlier papers (JA-

CZEWSKI, 1949), I am now able to list the following data, based entirely on specimens identified by an examination of their genital armature:

Yugoslavia, Dalmatia; USSR, Moscow Province; USSR, Altai Region, Biysk.

Notonecta reuteri HUNGERFORD, 1928. .

- N. lutea* var. *scutellaris* REUTER, 1886, Med. Soc. Faun. Fl. Fen., Helsingfors, **13**, p. 234.
N. lutea var. *reuteri* HUNGERFORD, 1928, Bull. Brooklyn Ent. Soc., **23**, p. 128.
N. reuteri HUNGERFORD, 1933, Bull. Univ. Kansas, Lawrence, Kans., **34**, No. 5, pp. 27, 59—60, 146, 168, pl. IV, fig. 9, pl. XVII, fig. 1.
N. lutea POISSON, 1933, Ann. Soc. Ent. Fr., Paris, **102**, pp. 331—335, 350—351, 352, 358, figs. 18—20, pl. IX, fig. 2, pl. XI, fig. 9.
N. reuteri POISSON, 1935, Rev. Fr. d'Ent., Paris, **2**, pp. 117—123, figs. 1 B, 2 B, 2 C, 4.
N. lutea (male) MACAN, 1941, Freshwat. Biol. Assoc., Sc. Publ., Ambleside, **4**, pp. 25—30, figs. 12 F, 15 B (?).
N. reuteri JACZEWSKI, 1949, Fragm. Faun. Mus. Zool. Pol., Warszawa, **6**, No. 1, pp. 1—9, fig. 2.
N. lutea (male) MACAN, 1956, Freshwat. Biol. Assoc., Sc. Publ., Ambleside, **16**, pp. 30—34, figs. 25 F, 27 L (?).

By externally visible characters almost indistinguishable from *N. lutea* MÜLL., in general slightly smaller (length of specimens that I was able to measure: 13.2—14.8 mm, mean from 5 measurements: 13.8 mm) and a little less stout. Lateral margins of the pronotum slightly more concave than in the former species. These differences are, however, subject to variation and practically are of little use.

The dark spots on the scutellum are met with in this species only exceptionally, and do not form a distinctive specific character.

The shape of the male parameres is somewhat variable in minor details and proportions (cf.: HUNGERFORD, 1933, pl. XVII, fig. 1; POISSON, 1933, fig. 18 B; POISSON, 1935, figs. 4 A, 4 B; MACAN, 1941, fig. 12 F; JACZEWSKI, 1949, fig. 2; MACAN, 1956, fig. 25 F); in particular, the „heel“ may be relatively longer or shorter than the „hook“. It seems,

therefore, somewhat doubtful that it was justifiable to establish a separate subspecies, *N. reuteri ribauti* POISSON (1935, pp. 119, 121—123, figs. 2C, 4B), in which the only distinctive structural character was the slightly different shape of the male paramere. As can be seen from the annexed figures [Fig. 3 and 4], the shape of the male parameres of *N. reuteri* HUNG. from such

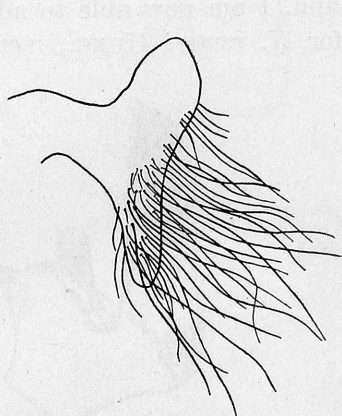


Fig. 3

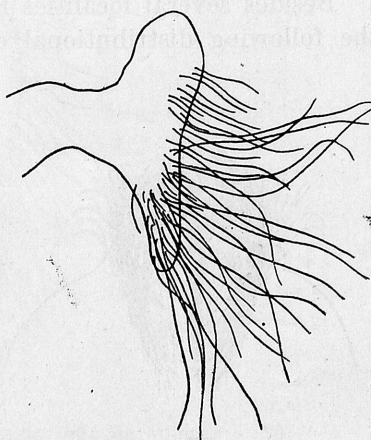


Fig. 4

Fig. 3. *Notonecta reuteri* HUNG., male, specimen from Poland, left paramere. $\times 50$.

Fig. 4. *Notonecta reuteri* HUNG., male, specimen from the Altai Region, left paramere. $\times 50$.

far distant countries as Poland and the Altai Region may closely resemble that of specimens from Central France. Thus the subspecies *N. reuteri ribauti* POISSON seems also to lack sufficient distributional foundation.

As shown above in the synonymy, the drawing of the male paramere published by MACAN in 1941 (as fig. 12F), and again in 1956 (as fig. 25F) under the name *N. lutea* MÜLL. refers to *N. reuteri* HUNG.

The median lobe of the rear margin of the seventh abdominal sternite of the female is distinctly more strongly developed [Fig. 5] than that of *N. lutea* MÜLL., and is more or less pointed. The gonapophyses of the eighth segment [Fig. 6] are longer and more tapering than in the preceding species.

A fairly good drawing of them has already been given by POISSON (1933, p. 332, fig. 19B), under the name *N. lutea* MÜLL. This difference in the shape of the gonapophyses of the eighth segment, which form the main component of the ovipositor, makes it probable that there exists some difference in the mode of oviposition between *N. lutea* MÜLL. and *N. reuteri* HUNG.

Besides several localities in Poland, I am now able to add the following distributional data for *N. reuteri* HUNG., veri-

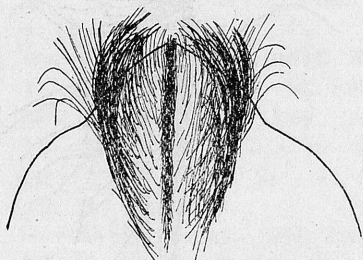


Fig. 5

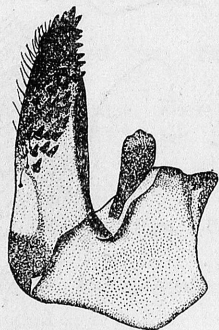


Fig. 6

Fig. 5. *Notonecta reuteri* HUNG., female, rear margin of seventh abdominal sternite (somewhat flattened under the cover glass). $\times 18$.

Fig. 6. *Notonecta reuteri* HUNG., female, right gonapophysis of eighth abdominal segment. $\times 20$.

fied in each case by an examination of the genital armature of the specimens:

Germany, Hamburg, Schmalenbeck; USSR, Altai Region, Biysk; USSR, Irkutsk Region, vicinity of Bayanday.

***Notonecta amplifica* KIRIČENKO, 1930.**

N. amplifica KIRIČENKO, 1930, Ann. Mus. Zool. Acad. Sc. URSS, Leningrad, **31**, pp. 434, 436, 437—439, figs. 1—4.

N. amplifica HUNGERFORD, 1933, Bull. Univ. Kansas, Lawrence, Kans., **34**, No. 5, pp. 27, 55—56, 146, 170, pl. V, fig. 4, pl. XVI, fig. 4.

N. amplifica ESAKI, 1936, Kontyû, Tokyo, **10**, pp. 42—44, fig. 2.

In a collection of aquatic *Heteroptera* received through the kindness of Prof. V. N. SKALON from Irkutsk I found

one male of this species, taken at the village Romanovka on the river Vitim, in the Buryat-Mongol ASSR, at 53° 10'N and 113°30'E. This extends the known area of distribution of this species over 1500 km to the north-west.

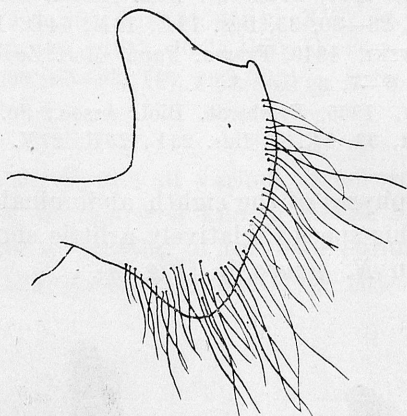


Fig. 7

Fig. 7. *Notonecta amplifica* KIRIČ., male, left paramere. $\times 50$.

To complete the figure of the male genital armature given by HUNGERFORD, I am adding here a drawing of the paramere of this species as it looks when isolated from the ninth abdominal segment [Fig. 7].

***Notonecta viridis* DELCOURT, 1909.**

- N. viridis* DELCOURT, 1909, Bull. Sc. Fr. Belg., Paris, **43**, p. 379, pl. IV, fig. 2, pl. V, fig. 18.
N. halophila EDWARDS, 1918, Ent. M. Mag., London, **54**, pp. 58—59.
N. glauca HUNGERFORD, 1919, Bull. Univ. Kansas, Lawrence, Kans., **21**, No. 17, p. 332, pl. XXXI, fig. 12.
N. viridis POISSON, 1924, Bull. Biol. Fr. Belg., Paris, **58**, pp. 58, 62—65, 69—77, 79, 110—114, 139, 186, 197, 276—277, 280, 295, 298, pl. III, figs. 12—14, pl. VI, figs. 1—2, pl. IX, fig. 3.
N. viridis POISSON, 1925, Bull. Soc. Ent. Fr., Paris, pp. 256—257.
N. viridis POISSON, 1925, Bull. Soc. Ent. Fr., Paris, pp. 328—330, fig. 1.
N. viridis HUNGERFORD, 1928, Ann. Ent. Soc. Am., Columbus, Ohio, **21**, p. 143, pl. IX, fig. 1.

- N. viridis* HUNGERFORD, 1933, Bull. Univ. Kansas, Lawrence, Kans., **34**, No. 5, pp. 27, 60—65, 146, 168, 170, pl. IV, fig. 5, pl. V, figs. 13, 14, pl. XVII, figs. 4, 5, 12.
- N. viridis* POISSON, 1933, Ann. Soc. Ent. Fr., Paris, **102**, pp. 318, 319, 326—329, 338—340, 345—346, 349—352, 358, figs. 6C, 10—13, 23, pl. VIII, figs. 3, 4, pl. XI, figs. 3, 12.
- N. viridis* MACAN, 1941, Freshwat. Biol. Assoc., Sc. Publ., Ambleside, **4**, pp. 25, 26, 28—30, 33, figs. 12E, 12H, 14D, 15C.
- N. viridis* JACZEWSKI, 1949, Fragm. Faun. Mus. Zool. Pol., Warszawa, **6**, No. 1, pp. 6—7, 9, figs. 3—5.
- N. viridis* MACAN, 1956, Freshwat. Biol. Assoc., Sc. Publ., Ambleside, **16**, pp. 30, 31, 33, 34, 63, figs. 25E, 25H, 27V.

The gonapophyses of the eighth abdominal segment of the female are in this species relatively a little shorter and stouter [Fig. 8] than in *N. glauca* L. [Fig. 9].



Fig. 8



Fig. 9

Fig. 8. *Notonecta viridis* DELC., female, right gonapophysis of eighth abdominal segment. $\times 20$.

Fig. 9. *Notonecta glauca* L., female, right gonapophysis of eighth abdominal segment. $\times 20$.

I am able to add the following to the distributional data of *N. viridis* DELC.:

Hungary, Balatonfüred, Lake Balaton; USSR, Rostov Province, Taganrog.

Notonecta irrorata UHLER, 1879.

- N. irrorata* UHLER, 1879, Proc. Boston Soc. Nat. Hist., **19**, pp. 443—444.
- N. irrorata* BUENO, 1905, Journ. N. Y. Ent. Soc., New York, **13**, pp. 159—160, pl. VII, fig. 6.

- N. irrorata* HUNGERFORD, 1918, Ent. News, Philadelphia, Pa., 29, pp. 242—245, pl. XIV, figs. 1—4, pl. XV, fig. 9.
- N. irrorata* HUNGERFORD, 1919, Bull. Univ. Kansas, Lawrence, Kans., 21, No. 17, pp. 32, 33, 166, 167, 171, 177, 180—185, 187, 304, 310, 312, pl. XIX, figs. 2, 6, 9, pl. XXII, figs. 1—4, pl. XXIII, fig. 9, pl. XXXI, fig. 7.
- N. irrorata* BUENO, 1923, Conn. St. Geol. Nat. Hist. Surv. Bull., Hartford, Conn., 34, pp. 405, 406, figs. 44, 45, pl. XVI, fig. 7.
- N. irrorata* HUNGERFORD, 1933, Bull. Univ. Kansas, Lawrence, Kans., 34, No. 5, pp. 66, 92—95, 146, 162, 180, pl. I, fig. 1, pl. X, fig. 4, pl. XVI, fig. 1.

To complete the figures of various structural details, given by HUNGERFORD, of this well known North American species I am adding here a drawing of its male paramere as isolated from the ninth abdominal segment [Fig. 10].

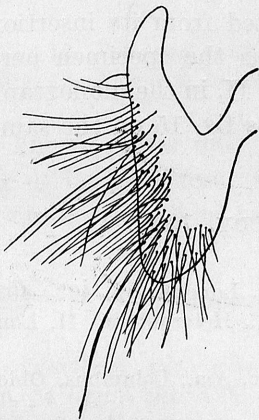


Fig. 10

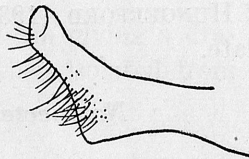


Fig. 11

Fig. 10. *Notonecta irrorata* UHL., male, right paramere. $\times 50$.

Fig. 11. *Notonecta robusta* HUNG., male, right paramere. $\times 50$.

I recently had the opportunity to study specimens of *N. irrorata* UHL. from Wapakoneta, Ohio, USA (leg. KAYSER), and from a locality called California, lying evidently somewhere in the eastern USA (there is unfortunately no indication of state on the label).

Notonecta robusta HUNGERFORD, 1932.

- N. robusta* HUNGERFORD, 1932, Journ. Kansas Ent. Soc., Manhattan, Kans., 5, pp. 54—55.
N. robusta HUNGERFORD, 1933, Bull. Univ. Kansas, Lawrence, Kans., 34, No. 5, pp. 66, 78, 146, 164, pl. II, figs. 14, 15, pl. XI, figs. 4, 10,

In the collection of the Institute of Zoology of the Polish Academy of Sciences there is one male of this species, labeled Guatemala. Being only a little over 12 mm long it is somewhat smaller than the type specimen described by HUNGERFORD. The ninth abdominal segment and the paramere, however, agree perfectly with the figures given by HUNGERFORD. In particular, the paramere lacks the sharp basal projection, characteristic of *N. ceres* KIRK. I am adding here a drawing of the paramere as it looks when extracted from its insertion in the ninth segment [Fig. 11]. In colour the specimen here in question is a little paler than fig. 14, pl. II, in the monograph of HUNGERFORD (1933), but not as pale as fig. 15 on the same plate.

Notonecta montezuma KIRKALDY, 1897.

- N. montezuma* KIRKALDY, 1897, Trans. Ent. Soc. London, pp. 402—403.
N. montezuma CHAMPION, 1901, Biol. Centr. Am., Heteroptera, II, London, p. 369, pl. 22, figs. 8, 9.
N. montezuma HUNGERFORD, 1928, Ann. Ent. Soc. Am., Columbus, Ohio, 21, pp. 142, 144, pl. IX, fig. 8.
N. montezuma HUNGERFORD, 1933, Bull. Univ. Kansas, Lawrence, Kans., 34, No. 5, pp. 66, 82—84, 145, 164, 180, pl. II, fig. 1, pl. X, fig. 2, pl. XV, fig. 4.

To complete the figures given by HUNGERFORD, I am adding here a drawing of the paramere of the male isolated from the ninth abdominal segment [Fig. 12]. The collection of the Institute of Zoology of the Polish Academy of Sciences possesses one male specimen of this species, labeled Central America (leg. Dr. O. LUTZ).

***Notonecta indicoidea* HUNGERFORD, 1927.**

N. indicoidea HUNGERFORD, 1927, Bull. Brooklyn Ent. Soc., **22**, p. 250.

N. indicoidea HUNGERFORD, 1933, Bull. Univ. Kansas, Lawrence, Kans., **34**, No. 5, pp. 68, 123—124, 145, 164, pl. II, fig. 2, pl. XIV, fig. 8.

The collection of the Institute of Zoology of the Polish Academy of Sciences possesses one male of this species, labeled Central America (leg. Dr. O. LUTZ). *N. indicoidea* HUNG.

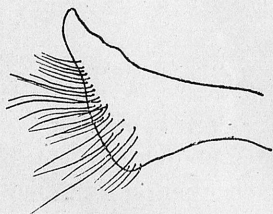


Fig. 12

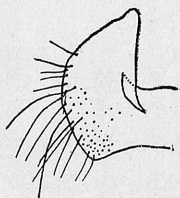


Fig. 13

[Fig. 12. *Notonecta montezuma* KIRK., male, right paramere. $\times 50$.

Fig. 13. *Notonecta indicoidea* HUNG., male, right paramere. $\times 50$.

was known so far only from Mexico, D. F. I am giving a drawing of its paramere [Fig. 13] as it looks when isolated from the ninth abdominal segment.

***Notonecta sellata* FIEBER, 1851.**

N. polystolisma var. *sellata* FIEBER, 1851, Rhynchographien, Prag, p. 54 (sep.), also Abh. Böhm. Ges. Wiss., Prag, (5), **7**, 1852, p. 478.

N. bifasciata HUNGERFORD, 1926, Psyche, Boston, Mass., **23**, pp. 12, 15, pl. 2, fig. 5.

N. sellata HUNGERFORD, 1930, Bull. Brooklyn Ent. Soc., **25**, p. 140.

N. sellata HUNGERFORD, 1933, Bull. Univ. Kansas, Lawrence, Kans., **34**, No. 5, pp. 126, 139—140, 145, 162, pl. I, fig. 14, pl. XII, fig. 4.

In the collection of the Institute of Zoology of the Polish Academy of Sciences there is a set of specimens of this species, labeled Argentina, Buenos Aires (leg. G. SCHIMPF). To complete the figures of the ninth abdominal segment of the male, given by HUNGERFORD, I am adding here a drawing of the male paramere as it looks when isolated from the segment

[Fig. 14]. The seventh abdominal sternite of the female shows a small incision at the tip [Fig. 15]. The gonapophyses of the eighth abdominal segment of the female are feebly developed [Fig. 16], and it can be inferred that the eggs are deposited on the surface of suitable submerged objects and are not embedded in plant tissues.

Notonecta bicircoidea HUNGERFORD, 1928.

N. bicircoidea HUNGERFORD, 1928, Ann. Ent. Soc. Am., Columbus, Ohio, 21, p. 120.

N. bicircoidea HUNGERFORD, 1933, Bull. Univ. Kansas, Lawrence, Kans., 34, No. 5, pp. 126, 136—137, 145, 164, pl. II, fig. 8, pl. XII, fig. 3.

The collection of the Institute of Zoology of the Polish Academy of Sciences possesses three specimens of this species,

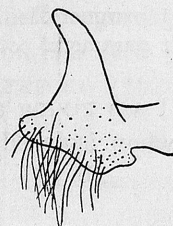


Fig. 14

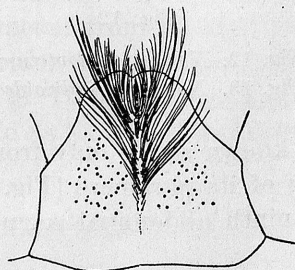


Fig. 15

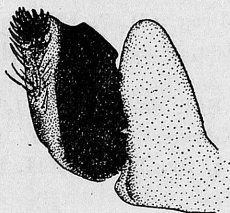


Fig. 16

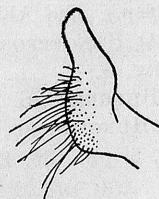


Fig. 17

Fig. 14. *Notonecta sellata* FIEB., male, right paramere. $\times 50$.

Fig. 15. *Notonecta sellata* FIEB., female, seventh abdominal sternite. $\times 25$.

Fig. 16. *Notonecta sellata* FIEB., female, right gonapophysis of eighth abdominal segment. $\times 40$.

Fig. 17. *Notonecta bicircoidea* HUNG., male, right paramere. $\times 50$.

labeled Chile (SIGNORET). In coloration they resemble more *N. sellata* FIEB. or *N. bicirca* HUNG. (HUNGERFORD, 1933, pl. I, fig. 16), than the figure of *N. bicircoidea* HUNG. given by HUNGERFORD on the colour plate in his monograph (1933, pl. II, fig. 8). The ninth abdominal segment of the male and the parameres, however, are identical with those figured by HUNGERFORD for *N. bicircoidea* HUNH. I am giving here a drawing of the paramere [Fig. 17] as it looks when extracted from the ninth segment. *N. bicircoidea* HUNG. was known so far only from the Rio Negro Territory in Argentina.

***Notonecta unifasciata* GUÉRIN-MÉNEVILLE, 1875.**

- N. unifasciata* GUÉRIN-MÉNEVILLE, 1857, Monit. Univ., Paris, p. 1298.
N. unifasciata GUÉRIN-MÉNEVILLE, 1857, Rev. Mag. Zool., Paris, 2, 9, p. 526.
N. unifasciata HUNGERFORD, 1929, Pan-Pac. Ent., San Francisco, 6, pp. 73—77.
N. unifasciata HUNGERFORD, 1933, Bull. Univ. Kansas, Lawrence, Kans., 34, No. 5, pp. 67, 109—112, 145, 162, 188, pl. I, fig. 12, pl. XIV, figs. 1—6.

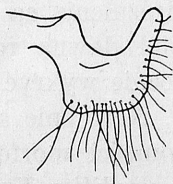


Fig. 18

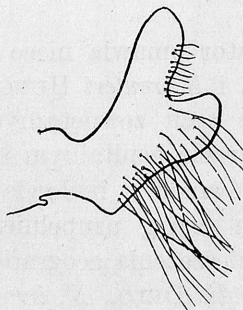


Fig. 19

- Fig. 18. *Notonecta unifasciata* GUÉR.-MÉN., male, left paramere. $\times 50$.
 Fig. 19. *Notonecta undulata* SAY, male, left paramere. $\times 50$.

I was able to examine recently some specimens of this species from Benjamin, Roy and Spanish Fork, Utah, U. S. A., which were sent me kindly by Prof. G. F. KNOWLTON. To supplement the figures given by HUNGERFORD, I am adding here a drawing of the paramere of the male, isolated from the ninth abdominal segment [Fig. 18].

Notonecta undulata SAY, 1832.

- N. undulata* SAY, 1832, New Species Het. Hem. N. America, New Harmony, Ind., p. 39.
- N. undulata* HUNGERFORD, 1933, Bull. Univ. Kansas, Lawrence, Kans., 34, No. 5, pp. 68, 117—123, 145, 162, 178, 180, pl. I, fig. 3, pl. IX, fig. 3, pl. X, fig. 3, pl. XIII, fig. 1.

The collection of the Institute of Zoology of the Polish Academy of Sciences possesses a number of specimens of this species from Vancouver, B. C., Canada (leg. Dr. W. ŁAZORKO). About one third of these specimens are of the pale colour form. I am adding a drawing of the paramere of the male, as it looks when isolated from the ninth abdominal segment [Fig. 19], as on the figure given by HUNGERFORD (op. c., pl. XIII, fig. 1) it is shown in an oblique position and its outline is somewhat disfigured.

STRESZCZENIE

Autor omawia nieco szczegółowiej gatunki *Notonecta lutea* MÜLL. i *N. reuteri* HUNG., które są nie do odróżnienia na podstawie cech zewnętrznych. Prócz znanych od dawna różnic w aparacie genitalnym samców udało się obecnie wykryć różnice również w budowie pokładelka u samic. Następnie autor podaje szereg uzupełnień dotyczących znajomości morfologii i rozmieszczenia geograficznego gatunków *N. amplifica* KIRIČ., *N. viridis* DELC., *N. irrorata* UHL., *N. robusta* HUNG., *N. montezuma* KIRK., *N. indicoides* HUNG., *N. sellata* FIEB., *N. bicircoidea* HUNG., *N. unifasciata* GUÉR.-MÉN. i *N. undulata* SAY.

РЕЗЮМЕ

Автор рассматривает несколько подробнее виды *Notonecta lutea* MÜLL. и *N. reuteri* HUNG., которые неразличимы по внешним

признакам. Кроме известных давно различий в генитальном аппарате самцов, удалось теперь обнаружить различия тоже в строении яйцевода у самок. Далее автор дает ряд дополнительных замечаний касающихся морфологии и географического распространения видов *N. amplifica* KIRIČ., *N. viridis* DELC., *N. irrorata* UHL., *N. robusta* HUNG., *N. montezuma* KIRK., *N. indicoidea* HUNG., *N. sellata* FIEB., *N. bicircoidea* HUNG., *N. unifasciata* GUÉR.-MÉN. и *N. undulata* SAY.

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